

NOTES ON AUSTRALIAN DIPTERA. No. viii.

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(Communicated by Dr. E. W. Ferguson.)

(Seven Text-figures.)

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Family Sapromyzidae.

In a preceding part of these notes I summarized the characters of this family. I omitted mention, however, of the postvertical bristles. These are convergent in all species of the family known to me, while in Sciomyzidae they are more or less divergent.

I present herein descriptions of some more Australian and Tasmanian species which have been in my hands for some time. While these descriptions are fairly exhaustive, it is quite probable that accessions of fresh material will necessitate careful comparisons of the types with the others to determine specific identities. An intensive study of the whole of the species from this region, with careful comparison of the dissected hypopygia, is the ultimate desideratum and this can best be undertaken by some student favourably situated in Australia where the type specimens will nearly all be available for study.

I hope to be able to present a key for the identification of all the genera known to me in a succeeding paper; meantime, I desire to study further some of the more difficult genera now in my hands.

Genus *DEPRESSA* novum. (Text-figure 1.)

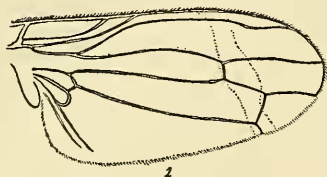
Generic Characters.—Habit similar to that of *Steganopsis* de Meijere. The antennae are short, similar to those of normal species of the genus *Sapromyza*, the basal segment shorter than the second and not hairy below, the third elongate, but not more than twice as long as wide, rounded at apex, and the arista short-haired. Frons flattened, sharp at vertex; postvertical bristles distinct; ocellars minute or absent; both orbital pairs present, backwardly curved; antennae at bases separated by as great a distance as either is from eye, the part between them subangularly produced; face immediately below bases of antennae transversely concave, then quite evenly convex, the labrum large and convex. Both sternopleurals present, the anterior one short; scutellum flattened, quite sharp on margin. Wing as in Text-figure 1, the cross-veins both beyond middle and rather closely placed.

Genotype, *Depressa atrata*, n. sp.

DEPRESSA ATRATA, n. sp. (Text-figure 1.)

Male.—Head dark fulvous, glossy; ocellar spot black, sides of frons darker than centre and front margin; sides of face silvery; antennae and palpi fulvous. Thorax glossy black, slightly shagreened and less shining on anterior margin of dorsum. Abdomen more pitchy black than thorax, shining. Legs fuscous, apices

of mid and hind tibiae and all of same tarsi, testaceous yellow. Wings fuscous, paler at apices, and with an oblique white preapical band as indicated in Text-figure 1. Halteres black.



Text-figure 1. Wing of *Depressa atrata*, pale band indicated.

Frons about 1.5 times as wide as long; cheek about one-fifth as high as eye; longest hairs on arista about twice as long as its basal diameter. Thorax with three pairs of postsutural dorsocentral bristles and four series of intradorsocentral setulae; prescutellar acrostichals long; scutellum about as long as wide, with four subequal bristles. Fore femur without a preapical anteroventral comb; all tibiae with a preapical dorsal bristle.

Length, 3.5 mm.

Type, Sydney, N.S.W., 19.10.24.

Genus PARALAUXANIA Hendel.

This genus was erected, as a subgenus of *Lauxania*, for the reception of one European species, *albiceps* Fallén. The only character distinguishing it from Hendel's subgenus *Sapromyza* is the presence of but one pair of orbitals. No other characters are mentioned by Hendel and, as I have not a specimen of the genotype before me, I cannot ascertain if other characters are present for distinguishing the genera.

In the material which I have seen from Australia and Tasmania there are several species that have the anterior fronto-orbital bristle absent or reduced to a minute hair, and these species I propose to place in *Paralauuxania*. Two of these are described herein.

PARALAUXANIA ELEVATA Fabricius.

Head glossy fulvous yellow, a spot on ocellar region, one where each anterior orbital bristle should be, a mark between each antennal base and eye, one on lower part of each parafacial, apical part of each third antennal segment, apices of palpi, and all of arista, fuscous; parafacials subopaque, white dusted. Thorax fulvous yellow on anterior margin, elsewhere glossy black. Abdomen glossy black; legs concolorous, the basal segment of fore tarsi except its apex, and basal two segments of mid and hind tarsi, testaceous yellow. Wings fulvous yellow, deep black on bases. Calyptrae and their fringes, and the halteres, black.

A very robust large species. Frons about 1.5 times as wide as long, depressed near anterior margin, ocellar bristles much shorter than postverticals; anterior orbital usually absent; the surface with very few microscopic hairs; antennae elongate, third segment tapered apically, more than three times as long as its basal width; arista with very short pubescence; face convex above; eye narrowed below, more than twice as high as cheek; postocular bristles black, not descending

below middle of eye. Thorax with the dorsal setulae quite strong, about six series between the dorsocentrals; of the latter there are two strong prescutellar pairs, and, anterior to these, two or three much weaker postsutural pairs; prescutellar acrostichals strong; sternopleurals two; mesopleural one; scutellum flattened, broader than long, apex subtransverse, apical bristles convergent. Abdomen stout. Fore femur without anteroventral comb; mid femur with a series of bristles on apical half of anterior surface; all tibiae with strong preapical dorsal bristle; mid tibia with two long apical ventral bristles. Inner cross-vein beyond apex of first vein and at middle of discal cell; last section of fourth vein less than 1.5 times as long as preceding section.

Length, 6.6-5 mm.

Two specimens, mounted on same card, Devonport, Tasmania (Lea).

PARALAUXTANIA FULVICEPS, n. sp.

Female.—Head bright fulvous yellow, glossy except on the parafacials, which are opaque and white dusted; a black spot on ocellar region; a brown mark below each eye; antennae and palpi not darkened; arista fuscous. Thorax and abdomen coloured as in preceding species. Legs pitchy, coxae and apices of tibiae yellowish, testaceous, tarsi pale, fore pair dark apically. Wings luteous, rather inconspicuously infuscated at bases. Calyptrae and halteres black.

Frons flat, subquadrate; ocellar bristles very much smaller than the postverticals; anterior orbitals not evident in type; surface hairs almost lacking; antennae rather short, third segment not more than twice as long as wide; arista with very short pubescence; cheek less than one-third of the eye-height; postocular bristles much weaker than in preceding species, not descending below middle of eye. Thorax with weaker and less numerous setulae, four series between the dorsocentrals, the latter consisting of three rather strong pairs behind suture; prescutellar acrostichals strong; scutellum convex, quite regularly rounded in outline. Legs as in preceding species, but less strongly bristled, the mid tibia with only one strong apical ventral bristle. Wing much as in preceding species, but the apical section of fourth vein is fully 1.5 times as long as preceding section.

Length, 3.5 mm.

Type, Sydney, N.S.W., 26.12.23.

Genus SAPROMYZA Fallén.

This genus as interpreted herein contains a number of groups, the extremes of which are very well distinguished from each other, but unfortunately there are many intermediate or connecting forms and the difficulties attendant upon the elucidation of the species, numerous though they are with the material on hand, will undoubtedly be much increased and intensified by the addition of more material. I present in synoptic form the external characters I consider to be of use in the identification of the species available to me. I have not made dissections of the male hypopygia, as in many cases I have but one specimen of a species and desire to leave the type intact, preferring to allow some Australian worker to elucidate these species further on the basis of hypopygial characters, which will, I am confident, prove as distinctive here as in the New World species of the genus.

In attempting to group the related forms I have used in my synopsis characters of chaetotaxy rather than those of colour and markings, and believe that, while in a very few cases (*e.g. immaculipes*) some doubt may arise as to the location of the species in the key, the student may identify the included

species with reasonable certainty. In doubtful cases species should be run through all sections of the key and the specimen compared with the description of the species to which it appears to run. There are, of course, many Australian species yet to be discovered, but I believe it would be detrimental to the progress of the study of these insects to publish only species descriptions and withhold the key so essential to their ready identification.

I have some species in my possession which are not included in the key, either because of their poor condition or because I am uncertain of their exact generic status. The key contains 28 species, 21 of which are considered as new.

Key to species of Sapromyza.

1. Thorax with four pairs of strong dorsocentral bristles, the anterior pair as strong as the one behind it and situated in front of suture 2
 Thorax with at most three pairs of strong dorsocentral bristles, the anterior pair at or distinctly behind the suture 8
2. Wings almost uniformly deep fuscous brown; thorax shining brownish testaceous, sparsely haired, the intradorsocentral setulae in two series, only the prescutellar pair long; arista microscopically pubescent; fore femur without an anteroventral comb, almost bare on that surface; mid femur with a fine apical bristle on posterior side and four or five quite pronounced bristles on apical half of anterior side; mid tibia with one strong apical ventral bristle 1. *suffusa*, n. sp.
 Wings hyaline, slightly greyish or yellowish 3
3. Only the posterior two pairs of acrostichals long and strong 4
 Four or more pairs of the acrostichals long and strong 5
4. Arista with its longest hairs about as long as its basal diameter; fore femur with a distinct anteroventral comb on apical half; third antennal segment narrowed just beyond insertion of arista, slightly tapered to apex; abdomen subopaque, brownish or fuscous; mid femur with a series of stout bristles on apical half of anterior surface; mid tibia with two long apical ventral bristles *hirtiventris* Malloch
 Arista practically bare; fore femur without an anteroventral comb; third antennal segment hardly longer than wide; abdomen glossy black; mid femur without anterior bristles; mid tibia with only one long strong apical ventral bristle 2. *pilifrons*, n. sp.
5. Arista almost bare; head fulvous yellow, the ocellar spot and labrum fuscous, orbits hardly darkened, antennae bright fulvous; thorax black, with slight greenish tinge, the entire surface densely grey dusted; abdomen black, with conspicuous greenish lustre; legs yellow, fore pair except knees, mid and hind femora at bases, and same tibiae and tarsi at apices, black; fore femur without an anteroventral comb; mid tibia with but one long strong apical ventral bristle 3. *subaeneiventris*, n. sp.
 Arista with its longest hairs conspicuously longer than its basal diameter, at least as long as half the width of third antennal segment; species not greenish on any part of body; fore femur with an anteroventral comb; mid tibia with two long strong apical ventral bristles 6
6. Arista short haired, the longest hairs not more than half as long as width of third antennal segment; third antennal segment, palpi, apices of femora, of tibiae, and of mid and hind tarsi, and all of fore tarsi, black 4. *bicoloripes*, n. sp.
 Arista plumose, the longest hairs more than half as long as width of third antennal segment; antennae yellow, third segment at most brownish; legs not sharply bicoloured, either uniformly yellowish, or the femora infuscated except apically 7
7. Femora infuscated except apically; thorax with four narrow brown interrupted vittae on dorsum, and a broader dark brown one on upper part of pleura; abdomen densely opaque grey dusted, a medianly interrupted chocolate brown fascia on base of each visible tergite from second to fifth, and a brown spot on the incurved lateral part of each tergite from first, the one on fourth tergite connected with the basal fascia 5. *variventris*, n. sp.
 Legs unicolorous tawny or testaceous yellow; pleura not vittate, thoracic dorsum very faintly or not at all vittate; abdomen unicolorous or very faintly marked *spinigera* Malloch

8. Mesopleura with two long, strong, rather closely placed bristles above middle near hind margin; mid tibia with two long strong apical ventral bristles; antennae entirely black, as long as head, third segment fully three times as long as wide, first and second segments subequal on outer side, the first with one or two microscopic hairs below at apex; face distinctly retreating below (Text-fig. 2); parafacials white dusted, with a velvety black mark between each antenna and eye; thorax tawny yellow, unspotted; wings honey yellow, apices very narrowly and faintly brownish; abdomen glossy black 6. *magnicornis*, n. sp.
Mesopleura with but one strong bristle above middle on hind margin, rarely with a setula below it; mid tibia with but one long strong apical ventral bristle 9
9. Thoracic dorsum with the anterior one or two pairs of postsutural dorsocentral bristles much weaker than the posterior pair, almost hair-like, the anterior pair almost invariably well behind the suture; arista pubescent, or almost bare ... 10
Thoracic dorsum with the three pairs of dorsocentrals almost equally long and strong, the anterior pair very close to or at suture; arista variously haired 20
10. Head and antennae black, parafacials slightly yellowish and densely white dusted; arista distinctly pubescent; thorax tawny yellow; abdomen shining black; wings greyish hyaline, unmarked *sciomyzina* Schiner
Head not entirely black, at least the face yellow or brownish-yellow 11
11. Frons entirely opaque, the orbital stripes black, forming two complete dark velvety vittae; wings conspicuously spotted with fuscous (Text-fig. 3); thoracic dorsum and pleura conspicuously vittate with black; scutellum flattened and black on disc, yellow on sides 7. *magnifica*, n. sp.
Frons not entirely opaque, at least the orbital stripes shining 12
12. Antennae largely or entirely black 13
Antennae entirely yellow 19
13. Femora and tibiae testaceous yellow 8. *immaculipes*, n. sp.
Femora and tibiae of one or more pairs of legs marked with black 14
14. Arista quite distinctly pubescent; first wing vein ending before or above inner cross-vein; wings unmarked with dark colour 15
Arista nude or almost so, the pubescence visible only under a very high power lens; or, if the arista is obviously pubescent, the first vein ends well beyond inner cross-vein; frons tawny yellow 16
15. Frons black; occiput tawny yellow; only the fore femora blackened 9. *alboatra*, n. sp.
Frons yellowish-brown; occiput with a large black mark on each side of upper half; all femora largely black 10. *occipitalis*, n. sp.
16. Wings without dark markings 17
Wings with distinct dark markings 18
17. Face with a black line along sutures between central part and parafacials; abdomen black, yellow at base; humeri with some microscopic fine hairs besides the strong bristle; areas mesad of the humeral angles very sparsely furnished with weak setulae; fore tarsi with a lanceolate bristle at apex of basal segment on posterior side, which is about as long as width of segment 11. *lancifer*, n. sp.
Face entirely tawny yellow; humeri without fine hairs; areas mesad of the humeral angles quite copiously furnished with stiff erect short bristles; fore tarsi with two normal shaped bristles at apex of basal segment on posterior side 12. *regalis*, n. sp.
18. Wing with a narrow fuscous cloud extending from base along costa to apex of fourth vein, and another faint brownish cloud over outer cross-vein; thoracic dorsum bivittate with fuscous *fuscocostata* Malloch
Wing with the dark markings confined to a fuscous suffusion of the cell between apices of auxiliary and first veins; thorax not vittate 13. *stigmatica*, n. sp.
19. Legs with conspicuous black markings; abdomen largely glossy black; arista almost bare 14. *flavimana*, n. sp.
Legs and abdomen testaceous yellow; arista long pubescent, the longest hairs fully as long as its basal diameter 15. *parviceps*, n. sp.
20. Arista plumose; a well developed bristle present on thoracic dorsum slightly behind and mesad of the supra-alar bristle; fore femur without an anteroventral comb 21
Arista very indistinctly pubescent; no noticeable bristle behind and mesad of the supra-alar bristle 22

21. Submedian pale brown vittae continued to anterior margin of mesonotum; no conspicuous spots on posterior margin of mesonotum *aberrans* Malloch
 Submedian pale brown vittae broken near anterior margin of mesonotum; a pair of black spots on posterior margin of mesonotum which appear velvety in some lights and which extend on to base of scutellum 16. *maculithorax*, n. sp.
22. Entire insect, including the legs, shining testaceous yellow; fore femur with a distinct preapical anteroventral comb; inner cross-vein of wing proximal of apex of first vein 17. *unicolorata*, n. sp.
 Insect not entirely testaceous yellow, bicoloured, the legs partly black 23
23. Thoracic dorsum not vittate, densely greyish or brownish dusted 24
 Thoracic dorsum conspicuously vittate, densely greyish or brownish dusted 26
24. Thoracic dorsum with a dark dot at base of each hair and bristle
 *punctiseta* Malloch
 Thoracic dorsum without dark dots on dorsum 25
25. Face with a dark central vertical stripe; dorsum of thorax brownish dusted
 18. *aureocapitata*, n. sp.
 Face without a dark central stripe; dorsum of thorax grey dusted
 19. *griseadorsalis*, n. sp.
26. Frons rather densely covered with short black setulose hairs anteriorly; face with a vertical line on each side, and frons with a central line, blackish; thoracic vittae blackish, linear, the lateral pair short and indistinct; costal and second veins and outer cross-vein, and sometimes also third vein, bordered with fuscous 20. *fuscolumbata*, n. sp.
 Frons practically bare except for the strong bristles; face and frons without fuscous lines as above; thoracic vittae brown, quite broad, and all four entire; veins of wings not bordered with fuscous 27
27. Palpi yellow; fronto-orbital bristles situated on a narrow grey stripe which is separated from the grey margin anteriorly by a narrow stripe of the same golden colour as the interfrontalia; fore femur without an anteroventral comb
 *victoriae* Malloch
 Palpi black; fronto-orbital bristles situated on the wide whitish lateral stripes; fore femur with a weak but evident preapical anteroventral comb
 21. *brunneovittata*, n. sp.

N.B.—To facilitate finding the descriptions of the species in the above key I have numbered them in both key and text omitting only the previously described species in the numbers. Should it fall to me to describe any species subsequent to the appearance of this paper, in all cases reference will be made in the remarks on the affinities of such species to the section of this key in which it finds its closest allies, and ready means for its distinction therefrom will be provided by notes on the distinguishing characters. It is to be hoped that other workers who may describe species will follow this plan also until it is possible to give a complete key to all the Australian species; isolated descriptions without such comparative data are usually detrimental to the progress of the study of the group.

Unfortunately I find it impossible to identify definitely most of the old author's species, those of Macquart and Walker being too briefly described to permit of their identification. However, an examination of the type specimens, if still in existence, will no doubt show whether they are the same species as any of those included in this paper. It appears to me that *carinata* Thomson and *nigriceps* Macquart belong in the same group as *sciomyzina* Schiner, but I cannot definitely identify either. Also *aeneiventris* Macquart and *metallica* Walker are no doubt related to *subaeneiventris* described herein, and *rufifrons* Walker and *pallida* Walker are very similar to *aureocapitata* and *griseadorsalis* included in this paper, but I do not care to decide whether they are the same without an examination of the types of the old species. Without a knowledge of the nature of the thoracic chaetotaxy, etc., it is impossible also to place *fuscicornis* Macquart and *tincta* Walker, both of these species appearing, however, to belong to *Sapromyza*.

It is not probable that *analis* Macquart is a *Sapromyza* ; if it is, it does not agree with any species at present known to me. Bergroth's species *barnardi* I cannot place.

1. *SAPROMYZA SUFFUSA* , n. sp.

Female.—Head brownish testaceous, face, cheeks, and lower half of occiput, paler, the first with whitish dusting, frons slightly shining, more pronouncedly so on orbits and frontal triangle; third antennal segment darker at apex than at base; arista fuscous; palpi testaceous yellow. Thorax shining brownish testaceous, immaculate. Abdomen shining pitchy black. Legs pitchy. Wings fuscous, darker on costal portion. Halteres testaceous brown.

Frons a little broader than long; ocellar bristles as long as postverticals; anterior orbitals a little shorter than posterior pair; third antennal segment about 1.5 times as long as wide; arista with very short pubescence; cheek not as high as width of third antennal segment; eye narrowed below. Thorax with four pairs of strong dorsocentrals (1 + 3), a pair of fine prescutellar acrostichals, and two series of fine intradorsocentral hairs; scutellum slightly flattened, a little elongated, the bristles subequal; anterior sternopleural bristle short. Abdomen elongate, bristles short. Fore femur without an anteroventral comb; hind femur without a preapical anteroventral bristle; all tibiae with strong preapical dorsal bristle; mid tibia with but one apical ventral bristle. Inner cross-vein a little beyond apex of first vein and close to middle of discal cell.

Length, 3.5 mm.

Type, Kosciusko, N.S.W., 27.12.24 (Goldfinch).

2. *SAPROMYZA PILIFRONS* , n. sp.

Female.—Shining fulvous, the abdomen, except base, glossy black. Wings honey-yellow. Halteres yellow.

Frontal bristles rubbed off in type, but the scars left indicate that they were all of normal strength, including the ocellar pair; frons subquadrate, with numerous short black surface hairs; third antennal segment not much longer than wide; arista almost bare; cheek more than half as high as width of third antennal segment; eye but little narrowed below. Thorax with four pairs of strong dorsocentral bristles (1 + 3), one pair of long prescutellar acrostichals, and about six series of intradorsocentral setulae, the submedian two series longest; scutellum short and convex, bristles equal. Abdomen stout, normal. Fore femur without an anteroventral comb; mid femur without distinct apical anterior bristles; all tibiae with preapical dorsal bristle, on hind pair much the weakest; mid tibia with but one strong apical ventral bristle. Inner cross-vein quite distinctly before apex of first vein and at middle of discal cell.

Length, 6 mm.

Type, Tasmania.

This species, despite the presence of presutural dorsocentrals, appears to be more closely related to the *sciomyzina* group than to the one it is linked with in the key.

3. *SAPROMYZA SUBAENEIVENTRIS* , n. sp.

Female.—Head orange-yellow, frontal orbits slightly brownish and a little shining, ocellar region fuscous; arista dark; antennae and palpi orange-yellow. Thorax black, slightly shining, and a little greenish, the surface obscured by rather dense greyish dust. Abdomen metallic blue-green, less densely grey dusted

than thorax. Legs dull orange-yellow, fore pair except knees, coxae, bases of femora (broadly), apices of tibiae, and of tarsi of mid and hind legs, black. Wings and halteres luteous.

All frontal bristles distinct, frons a little narrowed in front, as long as wide; arista with very short pubescence; third antennal segment about 1.5 times as long as wide; cheek not as high as width of third antennal segment; eye narrowed below. Thorax with four pairs of strong dorsocentrals (1 + 3), and about five pairs of strong acrostichals (1 + 4); scutellum convex, bristles subequal; anterior sternopleural quite long. Abdomen normal. Fore femur without an anteroventral comb; all tibiae with long preapical dorsal bristle, the one on hind tibia about one-third of the tibial length from apex; anterior bristles on mid femur rather fine; mid tibia with but one long apical ventral bristle. Inner cross-vein a little before apex of first vein and just beyond middle of discal cell, the wing narrow.

Length, 4 mm.

Type, Collaroy, Sydney, N.S.W., 29.1.24.

This species agrees very closely with the description of *aeneiventris* Macq., and also *metallica* Walker, but there are several other species which also do so and, unless an examination and redescription of the types of those species is made, it will be impossible to determine the exact identity of the species.

4. *SAPROMYZA BICOLORIPES*, n. sp.

Female.—Head opaque reddish testaceous, with grey or whitish dusting except on two marks on frons which are shaped like a J, the one on right side reversed, and a spot between each antenna and eye, which are reddish-orange, shading into brown; third antennal segment, arista, and palpi, blackish. Thorax reddish testaceous, quite densely grey pruinose, dorsum with four rufous vittae, margin of scutellum dark brown. Abdomen slightly shining, brownish testaceous, bases of tergites darker, slightly grey dusted. Legs dark yellowish testaceous, apices of femora and tibiae, nearly all of fore tarsi, and apices of mid and hind tarsi, blackish. Wings yellowish hyaline. Halteres whitish.

All frontal bristles long, the postverticals shorter than the ocellars; frons a little longer than wide; arista with its longest hairs about half as long as width of third antennal segment, the latter fully 1.5 times as long as wide; cheek not as high as width of third antennal segment; palpi slender. Thorax with four pairs of strong dorsocentrals (1 + 3), four pairs of strong acrostichals (1 + 3), and about two series of short hairs each side between the acrostichals and the dorsocentrals; scutellum short, subconvex, bristles equal. Abdomen normal. Fore femur with a fine anteroventral comb; all tibiae with preapical dorsal bristles; mid tibia with two long strong apical ventral bristles. Inner cross-vein of wing slightly before apex of first vein and middle of discal cell.

Length, 5 mm.

Type and paratype, King Island, Tasmania (Lea).

5. *SAPROMYZA VARIVENTRIS*, n. sp.

Female.—Head opaque brownish testaceous, the fronto-orbital stripes and triangle more greyish, a brown spot between each antenna and eye, and a fainter transverse mark above mouth; antennae reddish-yellow, apex of third segment brownish; arista brown, paler at base; palpi yellowish. Thorax subopaque, light brownish testaceous, dorsum with six narrow pale brown vittae, only the submedian pair very distinct, the others incomplete; pleura with a broad brown

vitta on upper half and a much fainter, narrower one below it, lower part of sternopleura fuscous; scutellum pale brown on sides. Abdomen densely grey dusted, each tergite except the first visible one with a centrally interrupted blackish fascia on anterior margin, the one on fourth tergite broadest, and a spot on the incurved lateral part of all tergites. Legs dusky testaceous yellow, femora almost entirely fuscous. Wings yellowish hyaline. Halteres testaceous.

Frons subquadrate, with microscopic hairs in front; postvertical bristles of moderate length, but much shorter than the long ocellars; anterior orbitals a little shorter than the posterior pair; third antennal segment about 1.5 times as long as wide; arista with short and long hairs intermixed, the longest about as long as width of third antennal segment; cheek as high as width of third antennal segment; eye slightly narrowed below. Thorax with four pairs of strong dorsocentrals (1 + 3), and a few short setulose hairs on dorsum; anterior sternopleural a little shorter than posterior one; scutellum flattened above, not elongated, the bristles equal. Abdomen with normal armature except on sides of third and fourth visible tergites where the hairs are very fine and erect, denser and shorter on the third. Fore femur with a distinct preapical anteroventral comb; bristles on apical half of anterior surface of mid femur strong; preapical dorsal bristle present on all tibiae, shortest on hind pair; mid tibia with two long strong apical ventral bristles. Inner cross-vein a little beyond apex of first vein and middle of discal cell.

Length, 4 mm.

Type, Narrandera, N.S.W.

A male taken at the same time and place as the above has the abdomen entirely black, with grey dusting, and appears to be different. It agrees very well with the female of *spinigera* Malloch, but may be distinct from both. More material is required to determine this.

6. *SAPROMYZA MAGNICORNIS*, n. sp. (Text-figure 2.)

Female.—Head fulvous yellow, frons opaque except on the orbital stripes and ocellar region, the latter with a fuscous mark; a velvety brownish-black mark between each antenna and eye; parafacials white dusted, subopaque; centre of face shining, antennae and arista black; palpi black. Thorax shining fulvous yellow, unspotted. Abdomen glossy black. Legs fulvous yellow, entire fore femora, fore tibiae and tarsi except their bases, apices of mid and hind tibiae and of same tarsi, black. Wings honey-yellow, their extreme apical margins becoming brownish. Halteres yellow.

Head in profile as in Text-figure 2; the parafacials with some microscopic hairs on upper part; ocellar bristles lacking; basal antennal segment with a few hairs below; frons subquadrate. Thorax with three pairs of prescutellar dorso-centrals, the anterior pair short, two pairs of prescutellar acrostichals, and four series of intradorsocentral setulae; scutellum convex, with four equal bristles; mesopleura with two strong bristles. Fore femur without an anteroventral comb, the posteroventral bristles strong on apical half only; fore tarsi normal; all tibiae with preapical dorsal bristle; mid tibia with two long strong apical ventral bristles. Inner cross-vein before apex of first vein and a little beyond middle of discal cell.

Length, exclusive of antennae, 8 mm.

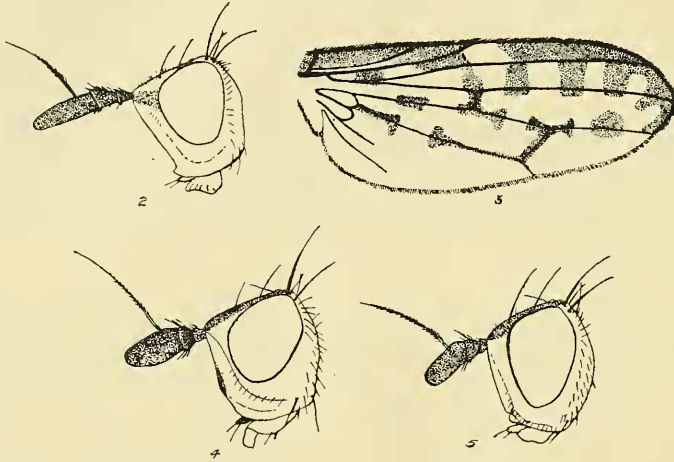
Type, Mt. Arthur, Tasmania, 28.12.1915 (F. M. Littler).

This aberrant species might be placed in a distinct genus because of the presence of fine hairs on under side of basal segment of antenna, and a second

strong mesopleural bristle, but in general habit and in its other structural features it so closely resembles several other species which lack those two features that it appears best to leave it in *Sapromyza*, at least until the Australian species are more thoroughly studied.

7. *SAPROMYZA MAGNIFICA*, n. sp. (Text-figures 3, 4.)

Male.—Frons opaque orange-yellow, the ocellar spot and a stripe along each series of orbital bristles black, face shining yellow, with a chocolate coloured central vertical stripe, parafacials yellow, not distinctly shining, with white dusting; antennae brown, paler below; palpi yellow, dark at apices. Thorax



Text-figure 2. Head of *Sapromyza magnicornis* from side.

Text-figure 3. Wing of *Sapromyza magnifica*.

Text-figure 4. Head of *Sapromyza magnifica* from side.

Text-figure 5. Head of *Sapromyza alboatra* from side.

shining honey-yellow, with two complete submedian dorsal vittae, a vitta along each pleuronotal suture, the greater part of sternopleura, and disc of scutellum, black. Abdomen black, bases of tergites glossy, apices grey pruinescent and sub-opaque; hypopygium tawny yellow. Legs honey-yellow, front sides of fore coxae, nearly all of fore femora, apices of mid and hind femora, apices of all tibiae, and apical three or four segments of all tarsi, black. Wings yellowish hyaline, with dark brown markings as in Text-figure 3. Halteres yellow.

Profile of head as in Text-figure 4; frons a little longer than wide, flat; arista nearly bare. Thorax with three or four pairs of postsutural dorsocentrals, the anterior pair, or two pairs, much shorter than the posterior pair, and not close to suture; only two series of intradorsocentral setulae present; scutellum flattened and more elongate than in the two preceding species, almost subtriangular. Hypopygium large and thick, heavily chitinized, recurved below abdomen. Legs as in *magnicornis*, the mid tibia with but one apical ventral bristle.

Length, 6.65 mm.

Type and one paratype, Mt. Wellington; one paratype, Hobart, Tasmania (Lea).

8. *SAPROMYZA IMMACULIPES*, n. sp.

Male.—Head dusky clay-yellow, ocellar region and a mark on upper part of each parafacial brownish; antennae and apices of palpi black; parafacials white dusted. Thorax shining testaceous yellow, with slight greyish dusting, most noticeable on pleura. Abdomen concolorous with thorax, in type largely infuscated on median tergites. Legs testaceous yellow, the apices of tarsi darkened. Wings greyish hyaline. Halteres yellow.

Frons about 1.25 times as long as wide; head in profile similar to that of *alboatra*, but the eyes not so narrow; arista subnude; antennae as in *alboatra*. Thorax with the two posterior pairs of dorsocentrals long, the anterior pair short and closer to suture than usual in this segregate, the intradorsocentral setulae in two or three series; scutellum convex. Legs normal. Inner cross-vein below or very slightly beyond apex of first vein and a little beyond middle of discal cell; first posterior cell slightly widened at apex.

Length, 4.5 mm.

Type, Sydney, N.S.W., 28.6.24.

9. *SAPROMYZA ALBOATRA*, n. sp. (Text-figure 5.)

Male.—Frons shining brownish-black, face and cheeks opaque yellowish-white, occiput fulvous yellow; antennae, arista, and palpi, black. Thorax shining fulvous yellow, immaculate. Abdomen glossy black, basal two segments yellow. Legs fulvous yellow, fore pair beyond basal third of femora, apices of mid and hind femora and same tarsi, black. Wings yellowish hyaline, more yellowish along costa. Halteres yellow.

Head in profile as in Text-figure 5; frons subquadrate; ocellar bristles of moderate length; postverticals long, well below upper margin of the rounded vertex. Thorax as in preceding species, but there are six series of intradorsocentral setulae present; only one pair of distinct prescutellar acrostichals, and but one strong mesopleural bristle present. Inner cross-vein below or slightly beyond apex of first vein.

Length, 5.5 mm.

Type and paratype, Launceston, Tasmania.

10. *SAPROMYZA OCCIPITALIS*, n. sp.

Male.—Differs from the preceding species in having the frons brownish-yellow, the face not so noticeably whitish except on sides, the upper half of occiput with a large subtriangular blackish mark on each side which does not extend to eye; thorax more testaceous yellow and with greyish dusting; fore femur entirely, mid and hind pairs largely, blackened.

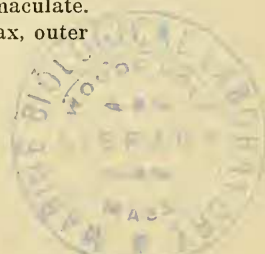
Structurally the species are very similar, but the thorax has four series of intradorsocentral setulae, and the wings are narrower and less broadly rounded at apices.

Length, 5.5 mm.

Type, Sydney, N.S.W., 6.11.24.

11. *SAPROMYZA LANCIFER*, n. sp.

Male.—Head fulvous yellow, ocellar spot, antennae, arista, and a line on vertical facial sutures, black; palpi yellowish; frons opaque, orbits shining, the latter and a central vitta paler. Thorax fulvous yellow, shining, immaculate. Abdomen pitchy black, yellowish at base, shining. Legs coloured as thorax, outer



side of fore coxae, all of remainder of fore legs, extreme apices of mid and hind femora, all but bases of same tibiae, and the apices of same tarsi, black or fuscous. Wings yellowish, more intensely so on costa. Halteres fulvous.

Head as in *occipitalis*, the face a little more retreating below. Thorax as in *occipitalis*. Wing rather long and narrow, more pointed than in preceding species, the inner cross-vein below a point about midway between apices of auxiliary and first veins. A striking character in this species is the presence of a lanceolate bristle at apex of basal segment of fore tarsus on its outer or posterior side, the length of the bristle being about equal to the width of the segment. Hypopygium large, forceps stout and curved.

Length, 7 mm.

Type, summit of Mt. Wellington, Tasmania (Lea).

It is possible that the female of this species will lack the lanceolate bristle on fore tarsus.

12. *SAPROMYZA REGALIS*, n. sp.

Female.—Differs in colour from *lancifer* as follows: The thorax and abdomen are dull concolorous fulvous yellow, the black colour of legs is confined to apices of fore femora, fore tibiae except bases, fore tarsi, apices of mid and hind tibiae and of same tarsi.

The thoracic dorsum is furnished with rather dense, short, and quite stout, setulae mesad of each humerus, whereas in *lancifer* there are a few fine setulae present there; the humeri are more prominent than usual and devoid of fine hairs which is not the case in *lancifer*; the bristles at apex of basal segment of fore tarsus on posterior side are normal in shape; and the inner cross-vein is very slightly proximad of apex of first vein.

Length, 7 mm.

Type, King Island, Tasmania (Lea).

13. *SAPROMYZA STIGMATICA*, n. sp.

Female.—Head dark fulvous yellow, ocellar spot blackish; antennae brown; frons shining on orbits and ocellar region; parafacials white dusted. Thorax tawny yellow, shining. Abdomen pitchy, paler at base. Fore coxae in front, all of remainder of fore legs, extreme apices of mid and hind femora, all of same tibiae, entire hind tarsi, and apices of mid tarsi, black. Wings yellowish hyaline, cell between apices of first and auxiliary veins fuscous. Halteres fulvous yellow.

Similar to *lancifer* in structure, etc. The ocellar bristles are fine and short. The inner cross-vein is placed as in preceding species.

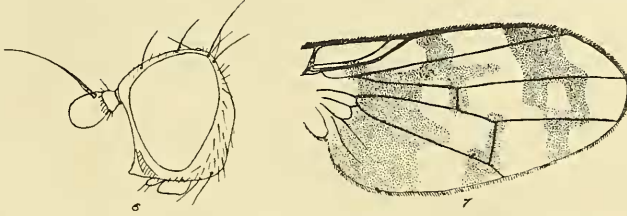
Length, 8 mm.

Type, Warburton, Victoria, 25.1.25 (F. E. Wilson).

14. *SAPROMYZA FLAVIMANA*, n. sp. (Text-figure 6.)

Female.—Head fulvous yellow, the ocellar region not noticeably darkened. Thorax and base of abdomen concolorous with head, dorsum of mesonotum on hind margin and disc of the scutellum blackened, the colour appearing almost subcutaneous. Abdomen beyond second tergite glossy black. Legs fulvous yellow, practically all of fore femora, and bases and apices of same tibiae, blackened, the bases of tibiae least conspicuously so. Wings honey-yellow, most intensely so along costa. Halteres fulvous yellow.

Head in profile as in Text-figure 6; ocellar bristle short; frons about 1.5 times as long as wide; arista almost bare; cheek almost linear. Thorax with 4-6 series of intradorsocentral setulae, the anterior of the three pairs of dorsocentrals well



Text-figure 6. Head of *Sapromyza flavimana* from side.
Text-figure 7. Wing of *Homoneura atrogrisea*.

behind the suture and weak; scutellum convex. Apical segment (7th) of abdomen tube-like. Legs as in preceding species; preapical bristle on hind tibia very much shorter than those on other tibiae. Inner cross-vein almost below apex of first.

Length, 5.5-6 mm.

Type and two paratypes, Hobart, Tasmania (Lea). One paratype without head.

15. *SAPROMYZA PARVICEPS*, n. sp.

Female.—Testaceous yellow. Frons shining on orbits, ocellar spot fuscous; antennae and palpi testaceous yellow; arista brownish. Thorax and abdomen shining. Legs testaceous yellow, tips of tarsi hardly darkened. Wings greyish hyaline. Halteres testaceous yellow.

Frons as long as its width at vertex, narrowed in front, surface almost bare; anterior orbitals a little shorter than posterior pair; antennae normal; arista with its longest hairs fully as long as its basal diameter; cheek about one-half as high as width of third antennal segment. Anterior of the three pairs of post-sutural dorsocentrals much shorter than the others, well behind the suture; intradorsocentral setulae in four series, the submedian pairs longest, especially posteriorly, the prescutellar pair conspicuous; scutellum subconvex, bristles subequal; anterior sternopleural short. Abdomen normal. Fore femur with a poorly developed anteroventral comb; anterior bristles on mid femur not very strong; all tibiae with preapical dorsal bristle, that on hind pair short; mid tibia with but one long apical ventral bristle. Inner cross-vein below apex of first vein and at middle of discal cell.

Length, 3 mm.

Type, Sydney, N.S.W., 29.1.25. Four paratypes, Cronulla, N.S.W.

16. *SAPROMYZA MACULITHORAX*, n. sp.

Male and female.—Head dull clay-yellow; frons with grey pruinescence on the orbits and ocellar triangle, quite dark brown in middle, pale anteriorly; face broadly fuscous in centre; antennae yellowish, apex of third segment broadly fuscous; palpi fuscous. Thorax clay-coloured, with grey pruinescence, subopaque, dorsum with two brown submedian vittae which do not extend to anterior margin, and terminate in two conspicuous blackish spots on hind margin which extend over base of the scutellum, laterad of these vittae there is a brown spot in front

of suture, and a much larger brown mark behind suture, the latter extending laterad to supra-alar bristle; pleura with a brown mark below humerus and some other brown patches. Abdomen shining, concolorous with thorax, the bases of tergites broadly fuscous. Legs testaceous yellow, femora largely fuscous. Wings greyish hyaline. Halteres yellow.

Frons not longer than wide, all bristles long; arista plumose; cheek not as high as width of third antennal segment. Thorax, legs, and wings as in *aberrans* Malloch.

Length, 4-4.5 mm.

Type, male, allotype, and two paratypes, Sydney, N.S.W.

Most closely related to *aberrans* Malloch, from which it differs in markings of thorax and legs.

17. *SAPROMYZA UNICOLORATA*, n. sp.

Male.—Entirely shining testaceous yellow, frontal orbits a little more shining than other parts of frons, ocellar spot not dark.

Frons subquadrate, orbitals all strong, ocellars short but distinct; antennae short; arista with very short pubescence; cheek about as high as width of third antennal segment. Thorax with three pairs of strong postsutural dorsocentrals, one pair of short prescutellar acrostichals, and four series of intradorsocentral setulae; both sternopleurals strong; mesopleura with quite strong hairs, especially below; scutellum flattened above, bristles equal. Abdomen normal. Fore femur with a distinct preapical anteroventral comb; mid femur with some preapical anterior bristles; hind femur with a few short preapical anteroventral bristles; all tibiae with preapical dorsal bristle, that on hind pair shortest; inner cross-vein distinctly beyond apex of first vein and middle of discal cell.

Length, 3.75 mm.

Type, Gisborne, Victoria, 15.11.23 (G. Lyell).

18. *SAPROMYZA AUREOCAPITATA*, n. sp.

Female.—Head bright orange-yellow, ocellar spot fuscous, orbits greyish yellow dusted both on eye margins and along the lines of bristles, face similarly dusted and with a faint blackish vertical line in middle; antennae and palpi orange. Thorax fuscous, densely brownish-yellow dusted on dorsum, more greyish on pleura. Abdomen coloured as thorax, but slightly shining, the bases of tergites brown, their apices greyish. Legs dull orange, fore femora and tibiae almost entirely, a broad annulus near bases of mid and hind tibiae, apices of same tibiae, apical four segments of fore tarsi and apical two of mid and hind pairs, blackish, the sub-basal annulus on mid tibiae and darkening of mid and hind tarsi least distinct; fore metatarsi testaceous yellow. Wings and halteres yellowish.

Frons a little longer than wide; ocellars smaller than postverticals; both orbitals long; arista subnude; cheek almost linear. Anterior pair of the three postsutural dorsocentrals rather short; intradorsocentral setulae in four series, the central pairs rather long, the two or three posterior pairs conspicuously so; mesopleural hairs very inconspicuous. Abdomen normal. Fore femur without an anteroventral comb; preapical tibial bristle present. Inner cross-vein before apex of first vein and at middle of discal cell.

Length, 4 mm.

Type, Sydney, N.S.W., 6.7.24.

19. *SAPROMYZA GRISEADORSALIS*, n. sp.

Female.—Differs from the preceding species in having the face without a dark central mark, the dorsum of thorax greyish like the pleura, the mid and hind tibiae without the sub-basal annulus, and the wings greyish hyaline. There are no evident structural differences.

Length, 4 mm.

Type, Sydney, N.S.W., 28.9.24.

20. *SAPROMYZA FUSCOLIMBATA*, n. sp.

Male and female.—Subopaque clay-coloured, densely grey pruinescent. Frons with a narrow fuscous central stripe connecting with the dark ocellar mark, each side of this stripe the surface is yellowish-brown; face whitish dusted and with a dark line on each side below antennae; a brownish mark between each antenna and eye; antennae and palpi yellowish. Thoracic dorsum with two narrow brown vittae along the lines of dorsocentrals, and sometimes two fainter partial vittae laterad of these, the submedian pair continued over scutellum. Abdomen with a faint dark centrally interrupted fascia on each tergite. Legs clay-yellow, all femora largely, and sometimes the tibiae faintly, grey or fuscous, apices of tarsi slightly dark. Wings greyish hyaline, costa, first, and sometimes second vein, and both cross-veins bordered with fuscous. Halteres testaceous.

Frons about 1.5 times as long as wide, with numerous stiff black setulae anteriorly; ocellars shorter than postverticals; anterior orbital very little in front of middle of frons; orbits not differentiated; frons in profile slightly protruded, the face receding a little below; highest part of cheek about as high as width of third antennal segment, the latter rounded in front and barely longer than wide; arista slender, almost bare. Thorax with three pairs of dorsocentrals, the anterior pair at suture, in one specimen with an additional presutellar pair, six series of intradorsocentral setulae, and one pair of moderately long prescutellar acrostichals; scutellum slightly flattened, bristles equal; sternopleurals long. Abdomen stout, the apical bristles on tergites of moderate length. Inner cross-vein a little beyond apex of first vein and middle of discal cell; fore femur without an anteroventral comb; preapical bristle weakest on hind tibia.

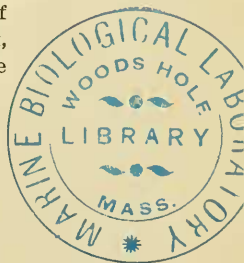
Length, 3.5 mm.

Type, male, marked (1) on card, allotype, to left of type on card, and 8 paratypes, the whole mounted, 5 on each of two cards, King Island, Tasmania (Lea). Beach.

Mounted with the specimens are the same number of empty puparia. These are brownish-red in colour and of the typical muscoid form. I leave the description of these to someone who may be able to deal with the immature stages of the family, on which we have practically no information at present even in Europe.

21. *SAPROMYZA BRUNNEOVITTATA*, n. sp.

Female.—Head opaque yellowish clay-coloured, with whitish dusting; frons orange in centre, more brownish on each side in front, the orbits broad, completely greyish-white; face with a blackish central streak; antennae brownish fuscous, paler at base of third segment; arista fuscous; palpi blackish. Thorax concolorous with head, dorsum with four broad dark brown vittae, the submedian pair tapered at anterior extremities and posteriorly continued over disc of scutellum; pleura with some dark marks. Abdomen more yellowish than thorax, distinctly shining, the bases of tergites brownish. Legs clay-yellow, all of fore



femora, both extremities of other femora, and of all tibiae, and apices of tarsi, black, the bases of tibiae least noticeably so. Wings yellowish hyaline. Halteres whitish.

Frons almost as wide as long; orbits not differentiated except in colour, the anterior orbital bristle much in front of middle of frons; ocellars small; surface hairs very sparse and fine; third antennal segment about 1.5 times as long as wide; arista with very short pubescence; cheek about half as high as width of third antennal segment. Thorax with three pairs of postsutural dorsocentrals, one strong pair of prescutellar acrostichals, and six series of intradorsocentral setulae; scutellum flattened, bristles equal. Abdomen normal. Fore tibia with a preapical anteroventral comb; all tibiae with preapical dorsal bristle. Inner cross-vein almost below apex of first vein and at middle of discal cell.

Length, 4.5 mm.

Type and paratype, Sydney, N.S.W.

Most closely related to *victoriae* Malloch, from which it is readily distinguished by the colour of legs, presence of a weak but evident fore femoral comb, etc.

Genus HOMONEURA v.d. Wulp.

I have already suggested the possibility of *Sapromyzosoma* Malloch being the same as *Homoneura* in this series of papers, and since that was written have received a specimen of *picea* v.d. Wulp, the genotype of *Homoneura*, from Dr. J. C. de Meijere, an examination of which confirms my supposition. The genus, therefore, will bear the name *Homoneura*, unless *Sapromyzosoma* Lioy should be found to be the same, in which case the name will revert to that form.

There are apparently fewer species of this genus in Australia than there are of *Sapromyza*, if the material forwarded to me is any criterion. I withhold a key to the species of the genus meantime, but hope to be able to present one in the next part of this series should my material enable me to do so. I suspect that *barnardi* Bergroth may be the same as *proximella* Malloch, but there are some difficulties attendant upon the elucidation of the species of this group which cause me to defer making a definite statement upon this point until I make an extensive study of all possible material.

HOMONEURA ATROGRISEA, n. sp. (Text-figure 7.)

Female.—Head clay-coloured, interfrontalia yellowish, orbits and frontal triangle grey pruinescent, a black mark between each eye and antenna, face and cheeks white dusted, the former with a broad brown transverse mark on middle, upper half of occiput blackish, lower half testaceous yellow, antennae fuscous, base of the third segment yellowish, palpi fuscous. Thorax fuscous, densely grey dusted, humeri yellowish, mesonotum with anterior margin, three large spots behind suture forming an almost complete fascia, and a mark on middle of hind margin which is connected with the postsutural mark, brownish-black; a brown streak on upper margin of pleura and another along middle, brownish-black; scutellum dark brown, testaceous yellow apically, the surface shining, grey pruinescent. Abdomen dark chocolate brown, with a faint yellow central line and a broader line of same colour on the incurved lateral portion of each tergite. Legs dusky testaceous yellow, femora brown, the mid and hind pairs pale in middle, the same pairs of tibiae brown at bases and apices, fore tibiae faintly dark at apices. Wings marked with fuscous as in Text-figure 7. Halteres yellow.

Frons subquadrate, bristles long and strong, anterior orbitals shorter than the posterior pair and close to anterior margin; antennae normal; arista plumose; cheek not more than half as high as width of third antennal segment; eye narrowed below. Thorax with three pairs of long dorsocentrals, the anterior pair in front of suture, a pair of long prescutellar acrostichals, and six series of intradorsocentral setulae; anterior sternopleural short; scutellum flattened, apex thin, bristles equal. Fore femur with an anteroventral comb; preapical tibial bristle present; mid tibia with one long and one short apical ventral bristle.

Length, 3 mm.

Type, Gordonvale, N.Q., October.

Readily distinguished from any species of the genus by the wing markings.

HOMONEURA APICINEBULA, n. sp.

Testaceous yellow, frontal orbits and triangle, thorax, and abdomen shining. Third antennal segment largely, arista entirely, brownish. Genitalia glossy black. Legs testaceous yellow, the tibiae except bases, and the tarsi mostly, brownish. Wings brownish hyaline, cell between apices of auxiliary and first veins, a cloud over each cross-vein, and one at apex of second vein, dark brown, a much paler brown cloud extending narrowly along costa from apex of second vein to apex of fourth and suffusing apices of third and fourth veins, least distinct on fourth. Halteres yellow.

All frontal bristles long and strong, surface hairs short and inconspicuous; antennae normal; arista very short pubescent; cheek nearly as high as width of third antennal segment. Thorax with three pairs of strong postsutural dorso-centrals, one pair of long prescutellar acrostichals, and about eight series of intradorsocentral setulae; scutellum convex, blunt at apex, bristles equal; anterior sternopleural long. Fore femur with an anteroventral comb; all tibiae with preapical dorsal bristle; mid tibia with two long apical ventral bristles. Inner cross-vein well beyond apex of first vein and at two-fifths from apex of discal cell.

Length, 5 mm.

Type and two paratypes, King Island, Tasmania (Lea). Apparently all males.

Family Clusioididae.

This family is generally referred to as Heteroneuridae, but the genus *Heteroneura* has been sunk as a synonym of another genus and the family name has been changed as above. The name Clusiidae has also been used, the basis for this being the genus *Clusia* instead of *Clusioides*, the latter being the genus which was previously known as *Heteroneura*.

But one species is known to me from Australia, from which region the family has hitherto been unknown. This species belongs to *Heteromeriingia* Czerny, a genus well represented in the New World.

The three North American species of the family which I have reared were all found in the larval stages in wood of much decayed trees, or under bark of felled trees. They are extremely sluggish in habit, moving very slowly, are cylindrical in shape, bluntly rounded at both extremities, have no chitinous dark mouth-parts, and the anal spiracles are situated upon two elevated chitinous dark projections which differ in shape in the species I have reared. The family is of no economic importance either in larval or adult stages, the flies frequenting fallen timber upon which they may frequently be taken at rest.

Genus HETEROMERINGIA Czerny.

This genus is distinguished by the following characters: Postverticals present; ocellars small; no cruciate bristles on interfrontalia; each orbit with 3 strong bristles, the anterior one incurved; arista pubescent; mid tibia without a preapical dorsal bristle; cross-veins of wings moderately close together; eyes bare.

HETEROMERINGIA AUSTRALIAE, n. sp.

Male.—Frons fuscous brown, paler in front, the orbits testaceous yellow; face coloured like frons; cheeks testaceous, white dusted above, fuscous below; antennae testaceous; palpi fuscous, pale at bases. Thorax pitchy, the dorsum with sides and two submedian vittae testaceous. Abdomen black. Legs testaceous yellow, fore pair except bases of tibiae, bases of mid coxae and of mid femora, black, apices of hind femora and bases of hind tibiae, fuscous. Wings hyaline, with apices broadly fuscous, the dark colour continued along costa and connecting with a broad median fascia which does not extend to hind margin. Halteres yellowish.

Vibrissae single. Dorsocentrals two pairs. Fore and mid femora with numerous fine ventral bristles.

Female.—Differs from the above in having the frontal orbits dark, face not black centrally, palpi yellow, wing with a cloud near base in addition to the other markings, legs testaceous yellow, only the fore tibiae and fore tarsi black.

Structurally like the male, but the fore tarsi are slightly widened.

Length, 4.5-5 mm.

Type, male, Coramba, 15.2.25; allotype, Sydney, N.S.W., February, 1925.

Despite the colour differences I believe the two specimens are conspecific.

Family Muscidae.

Subfamily ANTHOMYIINAE.

EGLE RADICUM Linnaeus.

This species was described under the genus *Egle* in Part v of this series of papers, page 38, but unfortunately the specific name was accidentally omitted.

Subfamily PHAONIINAE.

Genus RHYNCHOMYDAEA Malloch.

There are two species of this genus recorded from Australia, and a third one is now before me. I append a key for the identification of the three species.

Key to species of Rhynchomydaea.

1. Thorax, abdomen, and antennae, fulvous yellow; legs fulvous yellow, tarsi black *australis* Malloch
- Thorax entirely, antennae largely, black 2
2. Blue-black species, the abdomen with bluish or greenish grey dusting; antennae black; femora largely blackened *carinata* Stein
- Thorax black, grey dusted on dorsum, the supra-alar margin and pleura golden dusted; abdomen yellowish testaceous, more or less blackened apically, the whole surface quite densely golden pollinose and dark checkered; legs fulvous yellow, only the tarsi infuscated *pollinosa*, n. sp.

RHYNCHOMYDAEA POLLINOSA, n. sp.

Male.—Head fulvous below, blackish on frons and occiput, the face and cheeks golden pollinose; third antennal segment black except at base; palpi

fulvous. Thorax faintly quadrivittate on dorsum. Abdomen as described in key. Calyptrae fulvous. Wings hyaline, yellow at bases. Halteres fulvous.

Eyes very sparsely haired; frons linear above, bristled on entire length; carina of face prominent; arista plumose; vibrissal angle quite prominent; facial ridges setulose to well above middle. Thorax as in *carinata*, but the short hairs much stronger; prealar short. Abdomen short ovate. Fore tibia unarmed at middle; mid femur with a rather closely placed series of long bristles from base to beyond middle, the apices of which are curved towards apex of femur, the ventral and posteroventral surfaces with short fine hairs; mid tibia with three posterior bristles; hind femur with a series of long anteroventral bristles, fine at base; hind tibia with one anteroventral and two anterodorsal bristles. Fourth vein of wing not evidently curved forward at apex as in *carinata*, but almost uniformly divergent from third.

Length, 7.5 mm.

Type, Perth, W.A., 15.11.1924 (Nicholson).

Genus HELINA R.-D.

HELINA LEAI, n. sp.

Male.—Similar to *hirtibasis* Malloch, to which species it runs in my recently published key to the species of the genus. It differs in colour in having the bases of the wings slightly brownish-yellow, the bases of veins brown, and the calyptrae also yellowish-brown.

Structurally the species are very similar, but in the armature of the legs there are distinctions that clearly indicate they are different species. Both have the fore tibia unarmed at middle, and the mid femur with fine bristles ventrally, longest on posteroventral surface, where in *leai* they are stronger than in *hirtibasis*. The mid tibia has from 3 to 6 posterior bristles in both, but in *hirtibasis* it is normal at base, being furnished with short setulae, whereas in *leai* it is covered with dense microscopic pile, presenting a plush-like appearance, and when viewed from behind and above smooth and brownish on the anterodorsal side. The hind femur in *hirtibasis* has a series of fine bristles on the entire length of anteroventral surface, the apical two or three longer and stronger than the others, and the posteroventral surface has a series of shorter and finer bristles on almost its entire length; *leai* has about eight long strong bristles on apical third of anteroventral surface basad of which series there are only short setulae, and the short posteroventral bristles are confined to apical third. Both species have anterodorsal and anteroventral bristles on hind tibiae. The fourth vein is rather obviously curved forward in *leai*.

Length, 11.5 mm.

Type, Mt. Wellington, Tasmania (Lea).

The inclusion of *leai* in the key above referred to may be accomplished as below:

- 7a. Mid tibiae normally setulose at base on anterodorsal surface; hind femur with a complete series of anteroventral bristles *hirtibasis* Malloch
 Mid tibiae densely pilose at base, plush-like anterodorsally; hind femur with strong bristles confined to apical half of anteroventral surface *leai*, n. sp.

This species is named in honour of the collector, Mr. A. M. Lea, of the South Australian Museum, formerly Government Entomologist of Tasmania.